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ABSTRACT

To determine the educational background and needs of vocational teachers in Texas junior colleges, and to ascertain their interest in further professional development, a statewide survey was conducted by the newly-established Office of Technical Assistance Programs at Texas A and M University. The responses indicate that the typical vocational educator in Texas junior colleges has at least a bachelor's degree and 5 years experience directly related to the area in which he teaches. Although the need for further professional development is recognized, changing teaching situations and 12-month contracts make this difficult. Short-range goals and a long-range statewide plan are provided to improve educational opportunities for vocational teachers. (BH)

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A SURVEY OF POST-SECONDARY VOCATIONAL-TECHNICAL TEACHERS IN TEXAS

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January 1972

FOREWORD

The office of Technical Assistance Programs is newly established at Texas A&M University as an aid to the Texas Education Agency in providing for the professional development of vocational educators throughout the state. Information concerning the needs and desires of these educators was considered essential to program development and this office has, therefore, attempted to gather data upon which to base its recommendations. This survey summarizes these data and, hopefully, will provide a starting point for the emergence of a coordinated effort to satisfy the needs of vocational educators in Texas.

We wish to thank the deans and directors of vocational education plus the many teachers in those junior colleges that have taken the time and effort to assist us in gathering this information. Without this assistance, we would not have been able to make this beginning contribution.

G. Dale Gutcher, Director
Technical Assistance Programs
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CHAPTER I

INTRODUCTION

Career Education is emerging as a concept embodying a system of learning experiences that will, among other things, provide for occupational choice based upon knowledge of alternatives and personal capability. This concept employs a broader ideology than that of vocational education but because vocational education is considered by many to be an essential and major part of Career Education,[1] the need for quality in vocational education has never been greater.

Program quality is generally recognized as being directly related to instructional quality. The Texas Education Agency has accordingly allocated considerable resources to the professional development of vocational educators throughout the State in an effort to improve vocational instruction. In addition, the Texas State Plan for Vocational Education[2] lists the minimum qualifications required of all vocational educators as well as provisions for improving these qualifications.[3] Further recognition of the need for

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[1]National Association of State Directors of Vocational Education, Position Paper on Career Education, Adopted at Las Vegas, Nevada, September 17, 1971.

[2]Texas Education Agency, Texas State Plan for Vocational Education, Austin, Texas, June 1970, with August 1970 and January 1971 revisions, pp. 12 - 30.

[3]Ibid. pp. 31 - 33.

developing programs which will provide professional training for vocational educators was shown when the Texas Education Agency provided support for the Technical Assistance Program at Texas A&M University.

The function of the Technical Assistance Program is to assist the Texas Education Agency in fulfilling its commitment for the professional development of vocational education personnel under Section 553, Part F, of the Education Professions Development Act. It is responsible for providing consultative and advisory services to the Manpower Skill Centers, the EPD Consortia Coordinators, public schools, and junior and senior colleges regarding programs for upgrading vocational educators. Of central importance is assistance in the development of in-service training programs leading to an increased effectiveness of persons engaged in providing training for employment.

Need for the survey

As noted previously, the Texas State Plan for Vocational Education specifies minimum qualifications for Texas Education Agency approval to work in a vocational education program.

These personnel are, in general, qualified through both pre-service and in-service training programs. Degree programs satisfy the pre-service requirement in some service areas; however, in others this may consist of occupational experience only. This is particularly true in trade and industrial education.

At the secondary level, in-service training for many service areas consists of twelve semester hours of specified professional teacher education courses prior to beginning the third year of teaching. To upgrade the professional competencies of all personnel, the Texas Education Agency provides extensive in-service training. These activities include summer session and regular attendance at universities, orientation courses, and various short-term training sessions. Although post-secondary personnel are not required to complete the professional teacher-education courses, they are strongly encouraged to do so through one of these in-service programs.

Several factors combined to influence the decision to survey the population of junior college vocational personnel:

First, it was recognized that many of these people may not have earned a degree but may be quite anxious to become involved in the pursuit of a degree.

Second, many junior colleges are now contracting to provide vocational instruction for the secondary schools in their area. Vocational educators working with secondary school pupils are required to complete the specified twelve semester credits in professional teacher-education courses even though they are employed by a post-secondary institution.

Third, many of the junior college vocational educators are committed by contract to twelve months of teaching service. This rather effectively bars them from most degree credit course work which can be taken by secondary teachers during the summer.

Fourth, there is very little information available concerning the progress that is being made by junior college vocational educators toward their own educational goals. Any recommendations concerning in-service professional training should be based upon knowledge of need, availability, and programs desired by these persons.

Fifth, although Texas A&M University is presently engaged in providing extension course work for certification of secondary vocational industrial teachers, it was suggested in March, 1971, that increasing the availability of these courses could relieve the financial strain encountered by industrial employees entering the field of teaching. This would be accomplished by permitting these people to attend classes in the evening while retaining their employment.[4]

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[4] Proceedings, Teacher Education Hearing, The Advisory Council for Technical-Vocational Education in Texas. Presentation by Clifton A. Weaver, March 17, 1971.

CHAPTER II

METHODS

Inspection of the minimum qualifications to be met by those persons seeking approval to teach vocational education in a junior college reveals that these teachers generally could be classified into one of the four following groups:

Group 1 Those with less than a baccalaureate degree and none of the teacher-education courses specified in the State Plan.

Group 2 Those with less than a baccalaureate degree and some or all of the specified teacher-education courses.

Group 3 Those with at least a baccalaureate degree and none of the specified teacher-education courses.

Group 4 Those with at least a baccalaureate degree and some or all of the specified teacher-education courses.

Though concern should be expressed for their continued development and advancement in the teaching profession, persons fitting into Group 4 do not represent an immediate or pressing need for aid or direction. It might be assumed that they have already established a pattern of educational development and have also entered upon or completed a fairly comprehensive program in teaching concepts and procedures. The other three groups represent a population that should, however, be of great concern to those responsible for vocational education.

Assuming that instruction and programs would be enhanced through further development of the professional capability of these teachers, every effort should be made to develop programs to satisfy the needs of these groups.

The needs of vocational teachers in Texas junior colleges were unknown. It was decided that an effective method of determining these needs would be through a statewide survey of these teachers. A survey was therefore designed which would investigate five basic areas. These areas were:

1. Are the vocational teachers interested in professional development?
2. What courses would they be interested in taking?
3. What is the educational background, years of related job experience, and nature of their vocational certification?
4. Are professional development courses presently convenient and available to them?
5. How far would they consider traveling in order to obtain additional courses?

During the latter part of September, 1971, several faculty members of the College of Education cooperated in the preparation of a questionnaire to gather the desired information (see Appendix). Letters of explanation and blank questionnaires were mailed to the various deans or directors of vocational education in the junior

colleges listed in the Information Guide and Directory.[5] Information concerning the number of vocational teachers in each of the junior colleges contacted was not available, so one questionnaire for each program offered by the school plus an additional ten, was arbitrarily sent to each dean or director. It was recognized that this would not constitute a 100% or truly random sample of the teachers, however, it was hoped that those responses received would provide rather general information relative to the questions asked. These administrative officers were asked to distribute the questionnaires to the vocational teachers on their faculties. The teachers were asked to complete the questionnaire and return them to their administration. The completed and collected questionnaires were then returned to the office of the Technical Assistance Program for compilation of the responses. The information collected by means of the questionnaire is being supplemented through meetings with the deans and directors of vocational education in the junior colleges. These visits also provide the means of collecting specific recommendations regarding professional development programs to upgrade the capability of the teachers.

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[5] Information Guide and Directory of Occupational-Technical Programs in Post-Secondary Institutions in Texas. Texas Education Agency, 1970-71.

CHAPTER III

RESULTS

A synthesis of responses from a partial return of questionnaires was presented to the annual Community College Conference held at Texas A&M University, October 24-25, 1971. Approximately 325 questionnaires had been returned at that time. The total now is 569, or approximately 70% of the nearly 800 mailed out.

An indication of the percentage of teachers completing the teacher education courses was expected to be obtained from the responses to the first two questions. These questions asked if the person was certified, and if so, what was the status of that certification. It was assumed that many of the junior college teachers had moved to their present position from secondary school systems and therefore would have completed these courses in the process of becoming certified. Unfortunately, many teachers were not completely familiar with vocational certification procedures and had assumed that since they were approved to teach in a post-secondary institution, they were therefore certified. Because of this misunderstanding, the information, although reported as it was collected, is of questionable value. Once again, certification, as used in this report, implies the completion of those professional teacher-education courses specified in the State Plan for secondary vocational teachers.

According to the responses, there are more people engaged in teaching technical education (34% of those responding) at the junior college level than any other vocational area. Figure 1 shows the number and percentage of respondents teaching in various areas of Vocational Education.

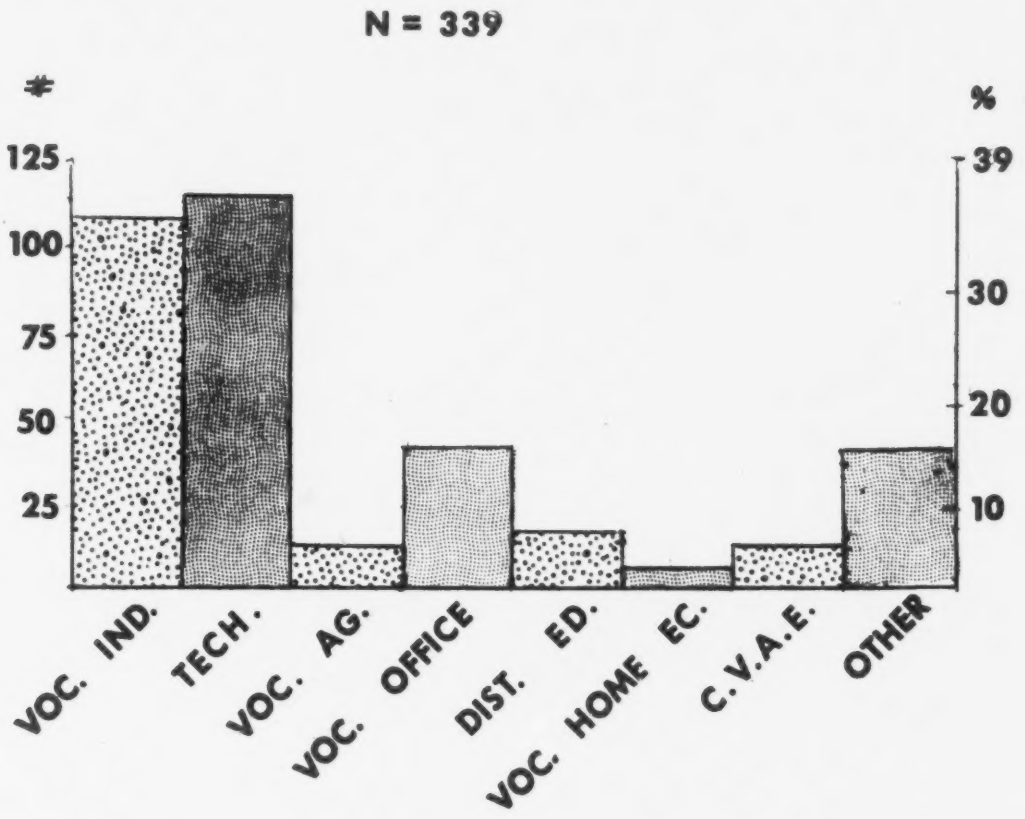

FIG. 1

AREA OF CERTIFICATION

These figures may be tempered somewhat by the realization that many persons teaching non-technical aspects of technically designated programs consider themselves to be technical educators. There is also some disagreement as to what actually constitutes technical education;[6]

[6] American Vocational Journal, American Vocational Association, Inc., Washington, D. C., March, 1970.

therefore, there may be considerable overlap with other areas. The number in this technical area is followed closely by vocational industrial education with 32% of the total. Those indicating that they are teaching in "other" areas (11%), are almost exclusively in health related occupations.

Of 563 people that indicated their degree attainment, 387, or slightly more than 68%, have at least a Bachelor's degree (Figure 2).

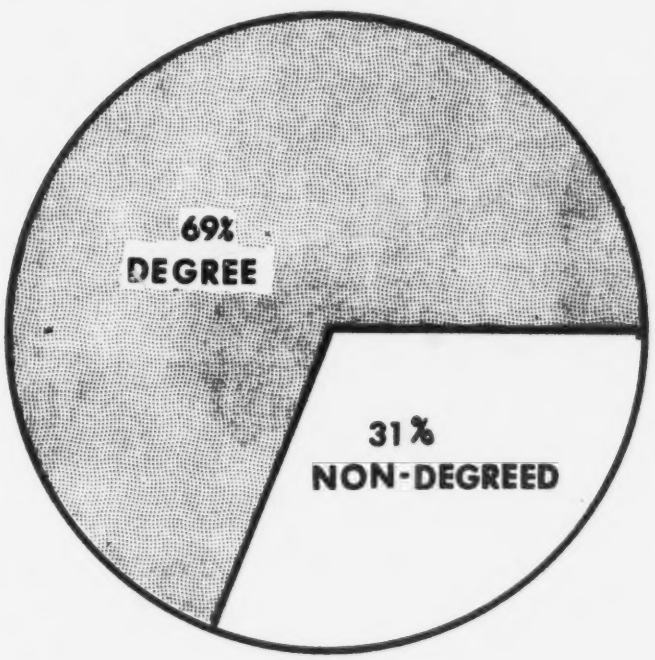

FIG. 2
INSTRUCTOR'S EDUCATION N=566

Slightly more than 50% of the respondents having degrees hold a Masters degree and together with those holding Bachelors degrees, as indicated in Figure 3, make up the major proportion of the population surveyed.

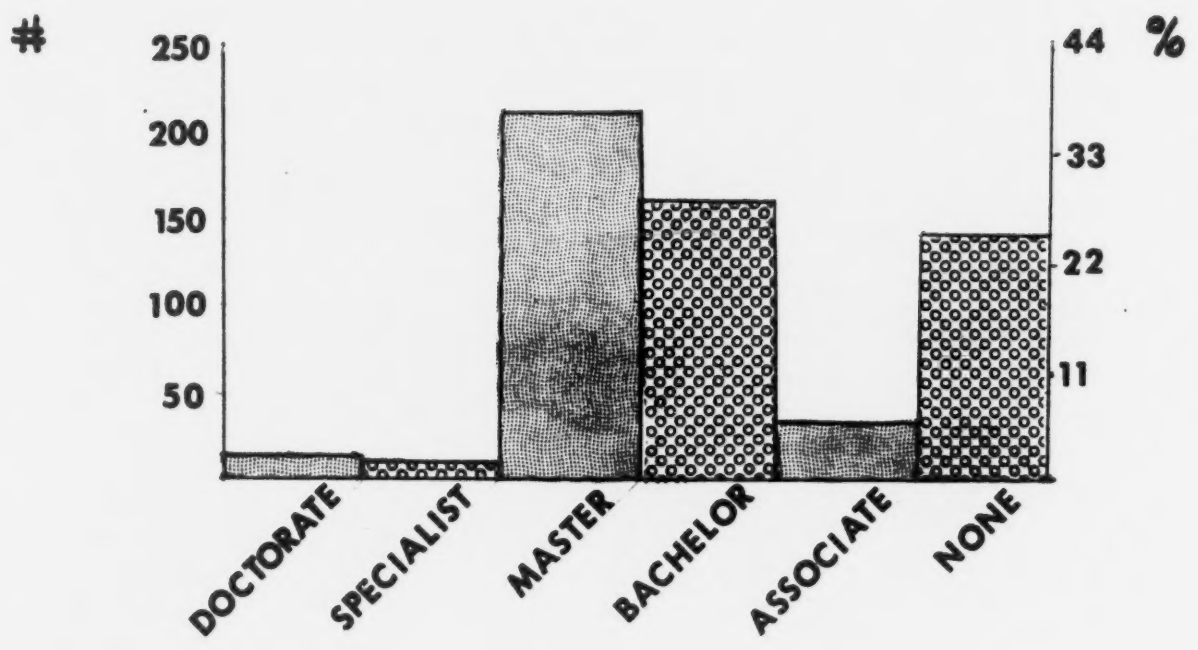

FIG. 3

HIGHEST DEGREE HELD

When asked about the number of years of occupational experience they have had, 376 persons with Bachelors degrees or higher responded. Of special interest is the indication that 117, or 31% of these, have less than five years employment experience directly related to the area that they teach. This is compared to 11% of the 176 respondents with less than a Bachelors degree that have less than five years experience. This suggests an inverse relationship between the number of years of work experience and the degrees obtained. This suggestion is reinforced at the other end of the scale as shown in Figure 4 -- 73% of those with no degree have over ten years of occupational

experience and only 36% of the degreed people have over ten years. This is a pattern suspected by many teacher educators and is fairly consistent with the notion that it is difficult to gain occupational experience and a college education simultaneously.

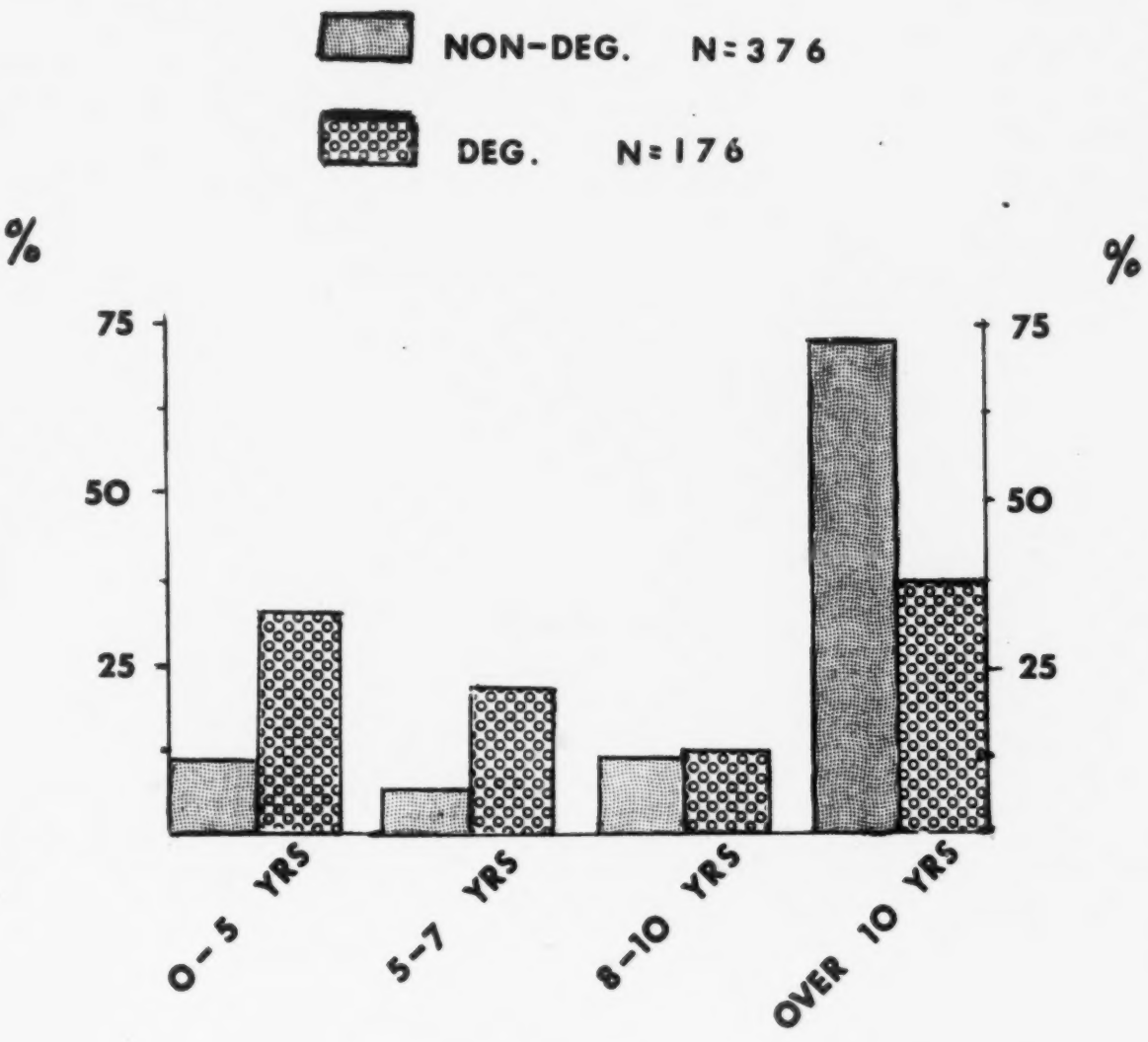

FIG. 4

WORK EXPERIENCE BY DEGREE

With slightly more than one-half of all respondents indicating that they have more than ten years of work experience and seventy percent possessing at least a four year degree, a relatively high level of preparation might be assumed. This does not indicate, however, that all of these teachers are completely satisfied with their preparation for teaching. Approximately 80% of those returning questionnaires indicated a desire to take course work leading to a degree (Figure 5). The analysis of responses shown in Figure 6, indicates that 57% of those desiring professional education courses already possess at least a Bachelors degree. As indicated in Figure 7, slightly more than 40% of those teachers responding, have indicated that they would like to take a course in "Methods of Teaching."

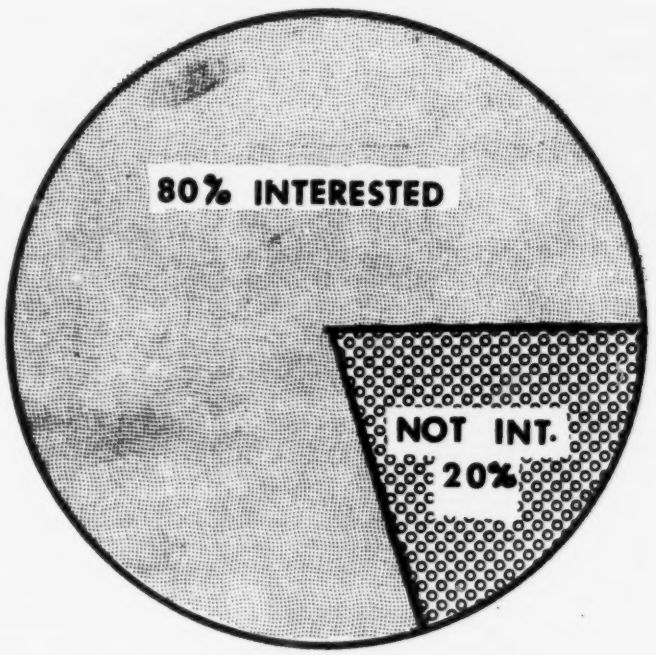

FIG. 5

INTEREST IN STUDY LEADING TO A DEGREE

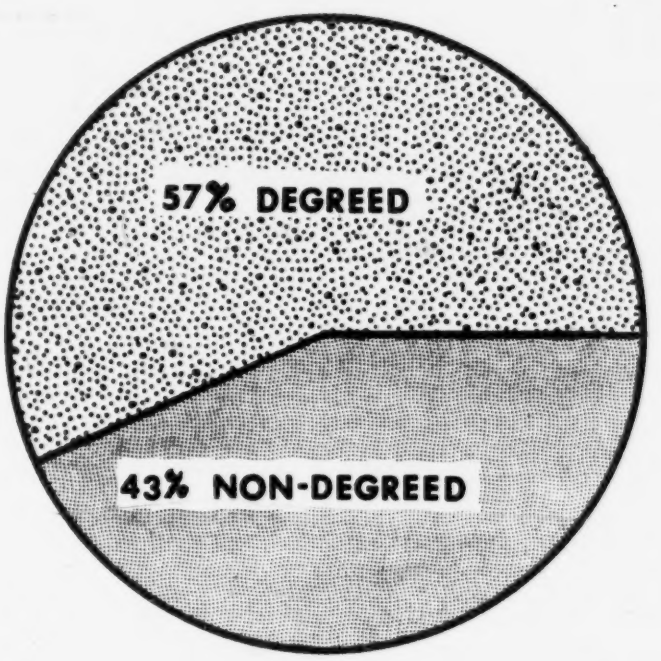

FIG. 6

DESIRE PROFESSIONAL COURSES

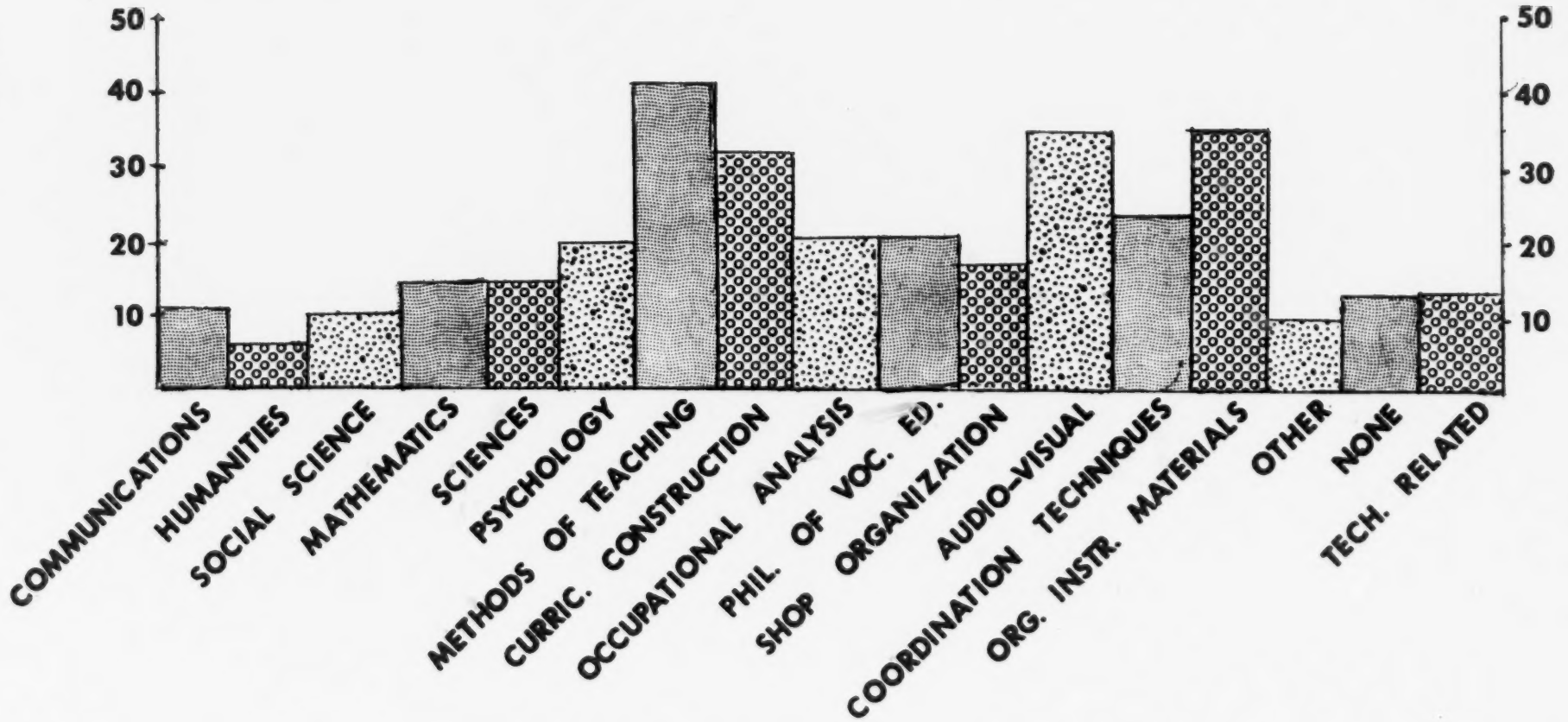

FIG. 7

PER CENT OF ALL
INSTRUCTORS DESIRING CERTAIN COURSES

Although some interest in general education course work was indicated, a much larger percentage of the teachers were interested in professional preparation courses. Requests for courses were grouped to determine if the originator of the request possessed a degree. A total of 1,094 requests came from persons holding at least a Bachelor's degree and 810 originated with non-degreed people. The percentage of requests from each group are compared in Figure 8. With approximately two-thirds of the respondents holding at least a Bachelor's degree, there was a total of 719 requests from this group for professional preparation courses which might normally be considered as undergraduate teacher-education. This is about 65% of the requests received from this group. The non-degreed segment of the respondents posted a total of 541 requests for the same type of course work, or almost 67% of their total requests.

Although slightly more than one-half of those responding (298) said that they do have access to course work leading to a degree, only 13% are currently enrolled in a degree program (Figure 9). Many indicated that these courses were available to them from a junior college, which implies that these people are speaking of general course work at the undergraduate level and not the teacher-education component of a degree program. Table 1 shows the number of requests for professional courses by Education Service Center regions and provides an indication of need in each of these areas.

A total of 119 respondents said that they had to drive over 50 miles one way to avail themselves of course offerings. When

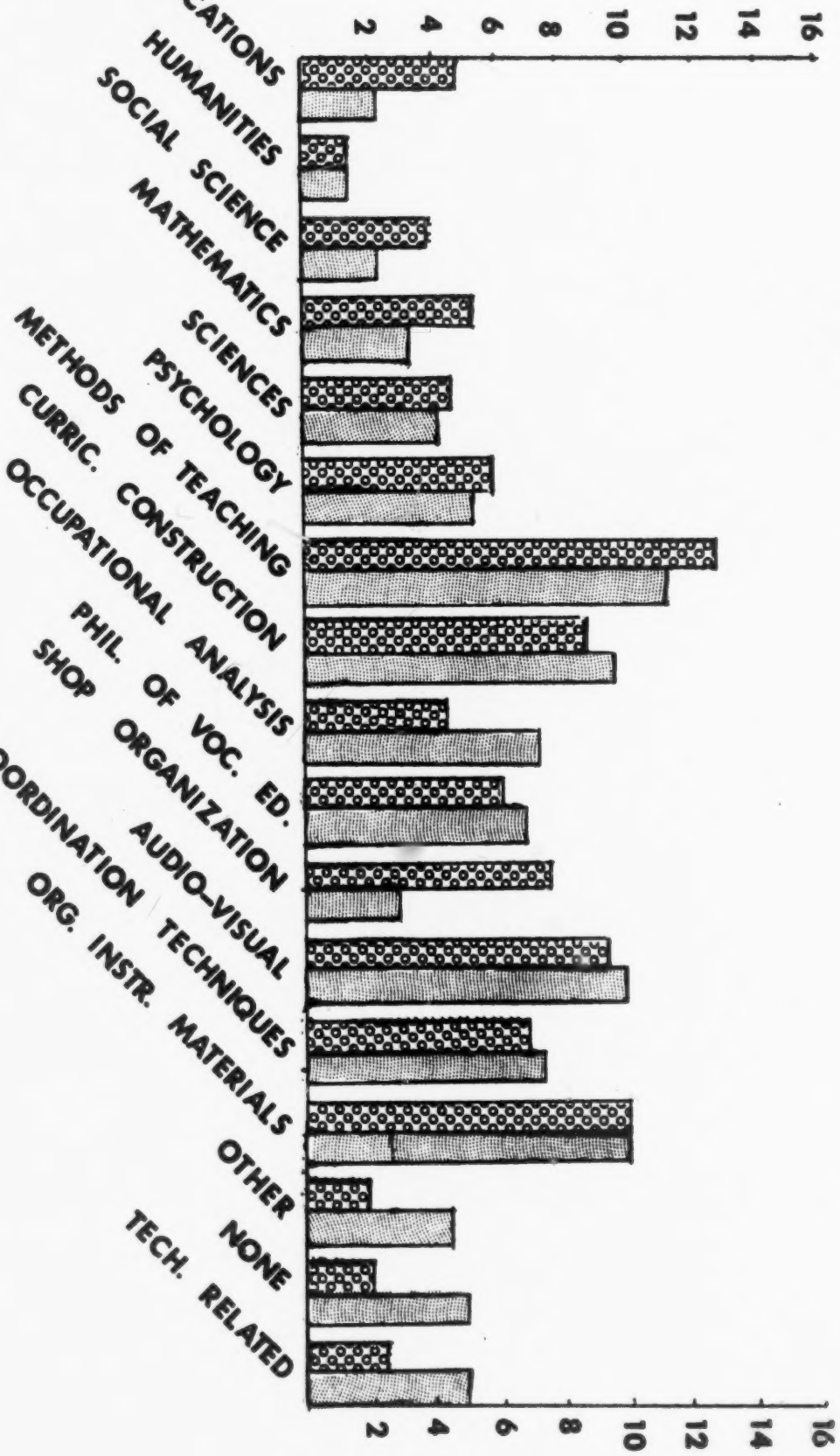

FIG. 8

PER CENT OF RESPONSES TO COURSE PREFERENCES

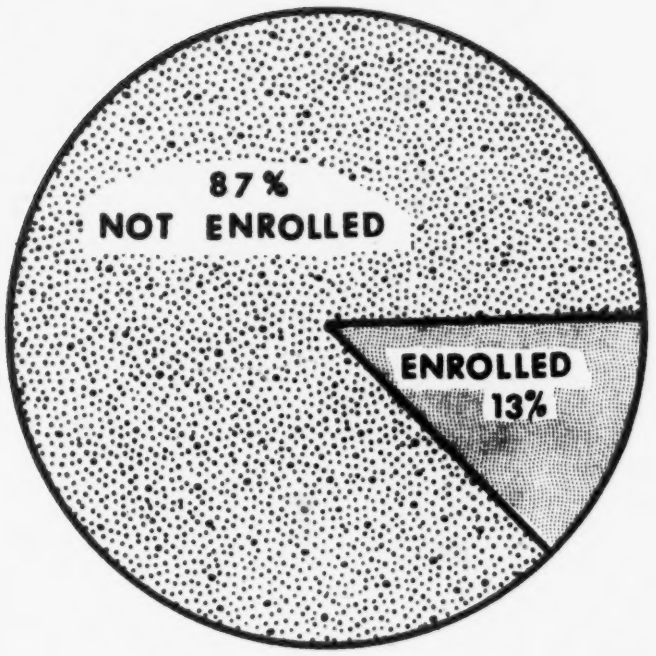

FIG. 9

CURRENTLY ENROLLED IN A DEGREE PROGRAM

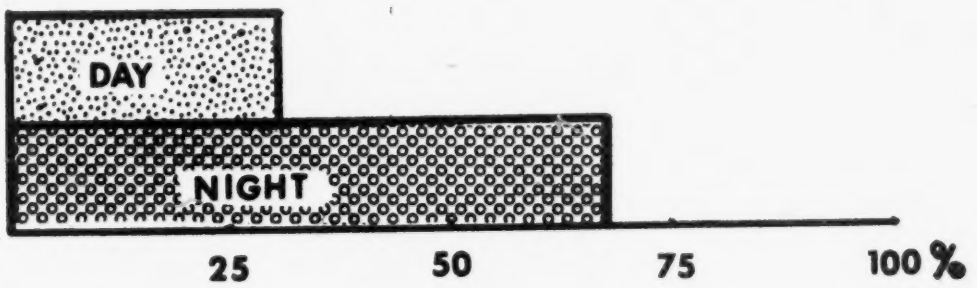

FIG. 10

CLASS TIME PREFERENCE

asked how far they were willing to drive, 231 said that they would drive 50 miles or more, one way, to obtain evening courses applicable to a degree.

As might be assumed, because of teaching commitments, evening courses are preferred by most people (Figure 10) and nearly 4 out of 5 respondents indicated that they would enroll in evening courses if they were available and would earn degree credit.

REGION	NUMBER OF REQUESTS								
	METHODS OF TEACHING	CURRIC. CONSTRUCTION	OCCUPATIONAL ANALYSIS	PHIL. OF VOC. ED.	SHOP ORGANIZATION	AUDIO-VISUAL	COORDINATION TECHNIQUES	ORG. INSTR. MATERIALS	OTHER
1	29	17	11	14	18	13	11	17	2
2	18	10	6	11	9	14	5	9	10
3	7	5	2	5	1	5	3	3	5
4	26	24	16	16	7	19	20	21	17
5	1	1	1			1		1	
6									
7	13	7	11	4	8	9	8	14	14
8	9	12	8	8	4	14	7	12	1
9									
10	13	11	7	12	5	12	6	9	2
11	15	17	10	10	4	17	12	15	11
12	41	28	18	11	10	29	22	26	22
13									
14	14	10	8	8	8	14	10	11	1
15									
16	8	4	4	4	5	4	4	6	2
17	4	4	3	4	4	6	4	6	3
18	18	15	5	7	4	17	14	15	7
19									
20	16	17	11	11	10	21	12	13	11
TOTAL	232	182	121	125	97	195	138	178	108

TABLE 1

COURSE PREFERENCE BY REGIONAL ED. CENTERS

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

A summary of the responses obtained from the questionnaires has provided a composite profile of the vocational educator in Texas junior colleges. This summary suggests that he is a well educated person, having obtained at least a Bachelor's degree. He has had at least five years experience in his specialization, and is dedicated to a teaching career in vocational education. In spite of his relatively high educational attainment and lengthy occupational experience, this person recognizes the need for further professional preparation. The degree that he now holds is apparently in an area other than education and since entering the teaching field he is becoming increasingly aware of the value of courses that would improve his effectiveness in the classroom or laboratory.

It appears that the population with which the junior college vocational teacher works is changing in many cases. He now finds himself providing instruction for the secondary as well as the post-secondary student. This places him in the difficult position of meeting new requirements for a different teaching situation, twelve month contracted obligations, and his personal desire to obtain further education to satisfy degree requirements.

Personal conversation with many teachers in several of the junior colleges by this investigator reveals that they are concerned about opportunities to further their professional development. Deans and directors of vocational education at the same institutions are concerned about the fact that there are few teacher-education courses available in their area that will lead to secondary vocational certification or provide the teacher-enrolles with degree credit.

Although relatively few individuals are currently enrolled in a degree program, a majority of the respondents are interested in study leading to a degree and these same people have indicated that they need or want professional course work. They want evening classes and are willing to drive considerable distances to obtain these.

A combination of needs emerge from the responses to the questionnaire. Briefly stated, these needs include expanded off-campus instruction of professional vocational education courses. Evening instruction is needed so that it will not interfer with the teaching responsibilities of potential students. Resident credit, graduate and undergraduate, is needed to facilitate degree work.

Recommendations

On the basis of the information gathered by means of the questionnaire and the personal visitations the following basic recommendation is made:

A long-range state wide plan should be initiated which would ultimately provide professional vocational education course work to off-campus students in a manner that would make it possible for these students to complete certification course work, encourage enrollment in degree programs, and enhance the completion of the desired degree program, graduate as well as undergraduate.

Recognizing that prevailing policies, State statutes, cost factors, and personnel shortages, in combination or singly, may make this recommendation impractical from an immediate point of view, it could serve as a logical and much needed long range goal.

Alternative short range goals might be established which could ultimately lead to the idealistic recommendation:

1. Expand the present extension program in vocational industrial education so as to increase the availability in more remote areas of the State that exhibit need.

2. The "workshop" concept should be continued where it is found to be necessary, such as in the orientation of new teachers. In those cases where the duration and organization of instruction can be arranged to warrant it, degree credit should be granted.

3. Because many vocational educators are finding it more difficult to attend regular summer sessions at senior institutions, consideration should be given to expanding the availability of professional development course offerings in areas more accessible to the teacher.

4. Deans and directors of vocational education should assume a greater responsibility for initiating requests for off-campus instruction for the advancement of their faculties and encourage enrollment to assure the economic feasibility of such programs.

5. All requests for off-campus course offerings should be coordinated by a person in the Texas Education Agency that could assemble and forward these requests to the senior institution most capable of providing the best instruction, and work with institutions in an attempt to fill all such requests.

REFERENCES

1. American Vocational Journal, American Vocational Association, Inc., Washington, D. C., March, 1970.

2. National Association of State Directors of Vocational Education, Position Paper on Career Education, Adopted at Las Vegas, Nevada, September 17, 1971.

3. Texas Education Agency, Information Guide and Directory of Occupational-Technical Programs in Post-Secondary Institutions in Texas, 1970-71.

4. Texas Education Agency, Texas State Plan for Vocational Education, Austin, Texas, June 1970, with August 1970 and January 1971 revisions.

5. The Advisory Council for Technical-Vocational Education in Texas, Proceedings, Teacher Education Hearing, Presentation by Clifton A. Weaver, Austin, Texas, March 17, 1971.

APPENDIX A

Survey Questionnaire

Name of your employing institution

_____

1. Do you now hold a valid vocational teaching certificate for the State of Texas?

   _____ Yes

   _____ No (If answer is no, please skip to item #4)

2. Is the certificate you have a temporary or a permanent certificate?

   _____ Temporary

   _____ Permanent

3. Your vocational certificate is in what area?

   _____ Vocational Industrial Education

   _____ Technical Education

   _____ Vocational Agricultural Education

   _____ Vocational Office Education

   _____ Distributive Education

   _____ Vocational Home Economics Education

   _____ Coordinated Vocational-Academic Education

   _____ Others, please specify _____

4. How many years of work experience do you have that is directly related to the vocational area that you teach?

   _____ Years

5. Which of the following degrees have you earned?

   _____ Doctorate

   _____ Specialists

   _____ Masters

   _____ Bachelors

   _____ Associate

   _____ None

6. Are you presently enrolled in a degree program at some college or university?

_____ Yes

_____ No

7. Are you interested in college level study leading to a degree?

_____ Yes

_____ No

8. Would you enroll for night classes (1 or 2 nights a week) if they could be credited toward a degree?

_____ Yes

_____ No

9. Because of your evening teaching responsibilities, would Saturday classes be more acceptable to you?

_____ Yes

_____ No

10. Do you now have access to evening or weekend courses that lead to a degree?

_____ Yes

_____ No

11. Through what agency or institution is the study program made available? (See item # 6 & 10)

_____

12. How many miles (one way) must you travel to avail yourself of this program? (See item # 6 & 10)

13. What kinds of courses would you be interested in taking if they were offered?

_____ Communications (English, Speech, etc.)

_____ Humanities (Art, Literature, Music, Philosophy, etc.)

_____ Social Science (History, Economics, Geography, etc.)

_____ Mathematics

_____ Sciences

_____ Psychology

_____ Professional development (check below specific courses)

- _____ Methods of teaching
- _____ Curriculum construction
- _____ Occupational analysis
- _____ Philosophy of Vocational Education
- _____ Shop Organization & control
- _____ Audio-Visual instruction
- _____ Coordination Techniques
- _____ Organizing instructional materials
- _____ Other (please specify) _____

14. If you would like to take a night class, how far would you drive (one way), to earn this credit?

_____ Miles

PLEASE ADD ANY COMMENTS YOU MIGHT WANT TO MAKE!

APPENDIX B

Summary of Responses

Name of your employing institution

_____

1. Do you now hold a valid vocational teaching certificate for the State of Texas?

   331 Yes

   236 No (If answer is no, please skip to item #4)

2. Is the certificate you have a temporary or a permanent certificate?

   67 Temporary

   265 Permanent

3. Your vocational certificate is in what area? -- n=339

   109 Vocational Industrial Education -- 32% of total

   114 Technical Education -- 34%

   9 Vocational Agricultural Education -- 3%

   40 Vocational Office Education -- 12%

   15 Distributive Education -- 4%

   5 Vocational Home Economics Education -- 1%

   9 Coordinated Vocational-Academic Education -- 3%

   38 Others, please specify _____ -- 11%

4. How many years of work experience do you have that is directly related to the vocational area that you teach?

   Less than 5 137

   5 - 7 65

   8 - 10 64

   10 + 285

5. Which of the following degrees have you earned? N = 563

13	Doctorate	70% of total responding
11	Specialists	
207	Masters	
163	Bachelors	
30	Associate	
141	None	

6. Are you presently enrolled in a degree program at some college or university?

65 Yes

435 No

7. Are you interested in college level study leading to a degree?

423 Yes

133 No

8. Would you enroll for night classes (1 or 2 nights a week) if they could be credited toward a degree?

410 Yes

130 No

9. Because of your evening teaching responsibilities, would Saturday classes be more acceptable to you?

176 Yes

368 No

10. Do you now have access to evening or weekend courses that lead to a degree? N = 531

298 Yes

233 No

11. Through what agency or institution is the study program made available? (See item # 6 & 10).

_____

12. How many miles (one way) must you travel to avail yourself of this program? (See item # 6 & 10) N = 313

Less than 20 100

20 - 50 94

50 + 119

13. What kinds of courses would you be interested in taking if they were offered?

69 Communications (English, Speech, etc.)

31 Humanities (Art, Literature, Music, Philosophy, etc.)

55 Social Science (History, Economics, Geography, etc.)

82 Mathematics

87 Sciences

108 Psychology

_____ Professional development (check below specific courses)

230 Methods of teaching -- 40%
177 Curriculum construction
122 Occupational analysis
122 Philosophy of Vocational Education -- 21%
93 Shop Organization & control -- 16 + %
189 Audio-Visual instruction
135 Coordination Techniques
192 Organizing instructional materials
63 Other (please specify) _____

14. If you would like to take a night class, how far would you drive (one way), to earn this credit?

Less than 20 122

20 - 50 171

More than 50 60

PLEASE ADD ANY COMMENTS YOU MIGHT WANT TO MAKE!